



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,471	09/30/2005	Thomas Hanemann	31775-221177	4402
26694	7590	01/05/2007		
VENABLE LLP P.O. BOX 34385 WASHINGTON, DC 20043-9998			EXAMINER REDDY, KARUNA P	
			ART UNIT 1713	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/551,471		HANEMANN ET AL.	
	Examiner		Art Unit	
	Karuna P. Reddy		1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/30/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: The words "anthrazene" and "2,3-benzanthrazene" should be replaced by "anthracene" and "2,3-benzanthracene" respectively to reflect the common nomenclature adapted by people skilled in the art. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9 provides for "use of fiber optical material for the core of an optical waveguide", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.
4. Claim 9 is rejected under 35 U.S.C. 101 because the claimed recitation of a "use", without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

- A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Tymianski et al (US 5,606,638).

Tymianski et al disclose a scintillating optical fiber composition comprising a matrix material; and dissolved therein, a polycyclic aromatic compound, which is an alkyl substituted naphthalene, aryl substituted naphthalene or a compound containing at least three fused rings (column 2, lines 49-56). The matrix material may be either a liquid such as an organic solvent, a polymeric solid or any combination thereof (column 5, lines 5-7). Polymeric solid matrix material may be a polymer formed by free radical or condensation polymerization. Illustrative of such polymeric materials are acrylic, vinyl, and styryl polymers and copolymers thereof and polyesters. The polymeric matrix material may comprise

one or more acrylic polymer(s) or copolymer(s). Preferably the acrylic copolymer is poly(methyl methacrylate) (column 5, lines 27-45). The polycyclic aromatic compound consists of primarily benzenoid rings in a fused ring structure in which there are carbon atoms belonging to two or more rings. Polycyclic aromatic compounds of this type include methyl naphthalene, phenanthrene, chrysene, pyrene, triphenylene etc. (column 4, lines 49-56).

7. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Maxwell (WO-03/02500 A1).

Maxwell discloses a polymer optical fiber prepared from an optically suitable material, which includes at least one functional species dispersed there through (page 5, lines 20-25, page 6, lines 1-2). Preferably, the polymer is selected from the group consisting of polymethyl methacrylate, polymethylmethacrylate / polystyrene etc. (page 6, lines 11-14). The functional species is an optical amplifier with one or more organic ligands namely phenanthroline, bipyridine (page 7, lines 22-24, page 9, lines 1-3).

8. Claims 1-5, 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Fujiyama et al (US 2003/0085387 A1).

Fujiyama et al disclose a dopant type polymer optical fibers where in these optical materials comprise at least one compound containing a carbocyclic or heterocyclic aromatic ring (abstract). These optical polymer materials are used

Art Unit: 1713

as optical waveguides and optical fibers (page 1, paragraph 0002). The heterocyclic (page 4, paragraph 0065) or carbocyclic aromatic ring (page 5, paragraph 0079) may be composed of a single ring or 2 to 4 aromatic rings fused together. Illustrative of examples of these fused rings are benzofuran (page 4, paragraph 0069), benzoxazole (page 5, paragraph 0072), anthracene and phenanthrene (page 5, paragraph 0081); fluorene (page 5, paragraph 0083); carbazole with N as the heteroatom on condensed aromatic ring system (page 5, paragraph 0083)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
Art Unit 1713



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700